

Preliminary Program

A. Physiological Roles for Calcium

1. Leslie Griffith: USA Calmodulin kinase and neuronal plasticity in *Drosophila*
2. Howard Schulman: USA Nuclear translocation of calmodulin kinase in cardiomyocytes
3. Patrick McDonough: USA Electrical pacing of ventricular myocytes causes hypertrophy via a calcium/calmodulin dependent pathway
4. Kyle Cunningham: USA Calcium entry pathways in yeast define a functional role for calcineurin
5. Yoshi Ohya: Japan Essential roles for calmodulin in yeast
6. Stephen Bolsover: USA Nuclear calcium transients
7. Robert Hinrichsen: USA Calmodulin mutants in *Paramecium* define cation pumps required for ciliary motility
8. Martha Cyert: USA The role of calcineurin in mating factor-induced cell cycle arrest
9. Kathy Beckingham: USA Calcium mediated pathways in *Drosophila*
10. David Levin: USA PKC mediated pathways in yeast

B. Calcium Homeostasis

1. Ernesto Carafoli: Switzerland Molecular characterization of the plasma membrane calcium pumping ATPase
2. Katsuhiko Mikoshiba: Japan Molecular Characteristics of the inositol trisphosphate receptor
3. Ludwig Missiaens: Belgium Molecular characterization of the ryanodine receptor
4. Barbara Erlich: USA Single channel characteristics of the IP₃ and ryanodine receptors
5. Michael Berridge : UK The second messenger characteristics of IP₃

B. Calcium Homeostasis (continued)

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| 6. | Roger Tsien:
USA | Molecular nature of the signal that regulates the capacitive calcium entry pathway |
| 7. | Lutz Birnbaumer:
USA | Identification and molecular characteristics of the capacitive calcium entry channel |
| 8. | Robert Malenka:
USA | Molecular regulation of LTP and LTD by calcium dependent enzymes |

C. Structural Bases for Calcium Regulation

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| 1. | Louise Johnson:
UK | Crystal structure of the catalytic subunit of phosphorylase kinase |
| 2. | Barbara Seaton:
USA | The 3 dimensional structure of annexin V |
| 3. | Franklyn Prendergast:
USA | Calmodulin interaction with D-amino acid amphiphilic peptides |
| 4. | Bill Cook:
USA | 3D structure of Ca^{2+} /calmodulin complexed to an antagonist |
| 5. | Maria Sunnerhagen:
Sweden | Structural basis for Ca^{2+} binding to Factor X |
| 6. | Carolyn Cohen:
USA | Structure of myosin light chains associated with myosin |
| 7. | Brian Sykes:
USA | Apo and Ca^{2+} bound structures of the NH_2 -terminal domain of Troponin C |
| 8. | Bruce Kemp:
Australia | Structural basis for Ca^{2+} regulated autoinhibition of enzymes |

D. Calcium Mediated Pathways and Human Disease

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| 1. | David MacLennan:
Canada | The molecular basis for malignant hyperthermia |
| 2. | Edward M. Brown:
USA
and | The calcium sensing receptor and mutations that result in hypocalciuric hypercalcemia neonatal hyperparathyroidism |
| 3. | Stuart Schreiber:
USA | Mechanism of action of immunosuppressive drugs |

D. Calcium Mediated Pathways and Human Disease (continued)

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| 4. | S. Orrenius:
Sweden | Calcium mediated apoptosis |
| 5. | David Brendt:
USA | Nitric oxide synthase deficient mice |
| 6. | Donald McDonnell:
USA | Hormonal antagonists of osteoporosis |
| 7. | Gregory R. Mundy:
USA | The molecular basis for malignancy-associated hypercalcemia |
| 8. | Hiroshi Hidaka:
Japan | Inhibitors of calmodulin dependent enzymes |